18 July 2017

EU+MS comments on the report „Pollution free planet“ by the Executive Director of the UN Environment Programme

Part of the report	Comment
General comment	Regarding the different policy recommendations, we believe that it would be useful if UNEP could underline more precisely which are already covered by obligations under the different MEAs or initiatives and which could be new commitments that could be taken at UNEA-3.
General comment	We would like also to point out that the approach of decontamination as expressed p. 3[1] could be improved. Risk assessment and management should not only be applied to future pollution but also to legacy pollution. The report should not give the impression that systematic decontamination is possible and that it is a simple matter of a scaling up existing decontamination technologies. As a matter of fact, the report itself promotes a more strategic approach identifying priority interventions. Furthermore, the principle of prevention and precaution should be the first priority (act before rather than deal with the consequences afterwards).
General comment	The promotion of ecosystem and nature-based solutions could be better highlighted with concrete examples and best practices.
General comment	Overall a good and useful document. The intended "Framework for Action" character needs further work but the main structure (targeted interventions in pollution areas, system-wide interventions and enablers) seems useful.
General comment	The focus seems to be interventions from governments and authorities, while private sector led action can also be very important.
General comment	A supplementation of the document with critical evaluation and ranking of the different technical approaches (i.e.: which approach would be best used or best avoided under what circumstances) would be advantageous.
Executive Summary	Pollution and the natural resources agenda. The document rightfully points out that resource efficiency and the ambitions towards a circular economy can help to turn waste into a resource, therefore minimizing risks from that particular source. However, we feel that this link needs to be elaborated, including the need to re-design products, rethink consumption patterns (services instead of consumption of goods). Also, and importantly, the document needs to highlight the need to carefully assess the resource requirements of shifts in production techniques or technologies. We need to avoid situations where we solve one issue/ element of pollution by

[1] "Solutions to help clean up pollutants and detoxify our environment exist in all parts of the world. They now need to be expanded and scaled up [...]. Along with solutions to help clean up existing pollution, better risk assessment and management of new pollution sources are urgently needed.

	creating other issues (depletion of resources and new sources of pollution).
Executive Summary	Reference missing to the potential links between pollution and other big challenges such as security, migration etc, to other SDGs beyond the one strictly pollution related (SDG3), and to the Paris agreement.
Executive Summary	Link to circular economy from the first paragraph is very welcome – need to go beyond classical approach of dealing with emissions to a more profound transformation of production and consumption model.
Executive Summary	System-wide interventions: seem too general. Ecosystem protection and restoration does not seem to fit here, it would need some explanation, as well as the concept of "horizontal and vertical integration in cities".
Executive Summary	The summary does not specify governance gaps outlined in table 8, making it challenging to separate between targeted interventions that have agreed international risk reduction actions and ones that don't have.
Executive Summary	We suggest making a reference to climate change/Paris Agreement. While climate change is mentioned a few times in the report itself (but could perhaps be highlighted more clearly), it seems politically useful and appropriate to also mention climate change in the summary/introduction, given that the Paris Agreement is one of the milestone agreements for sustainable development, alongside the 2030 Agenda.
Executive Summary	"Pollution-free planet" is described as an "aspirational goal" (in the ES and also towards the end). What does that mean exactly? It could be read as though it is only an aspiration, not a real objective that must be achieved.
Executive Summary, page I	Third para: not only health and living organisms suffer from pollution, also economy. For example a polluted water body or piece of land cannot be used anymore for legitimate uses and this has economic consequences.
Executive Summary, page III, figure 1 (and in general)	While the description of the figure reads "examples of impacts on human health and well-being and ecosystems", the actual examples are mainly from the health sector. While health impacts constitute an important ground for pollution action, it seems that the ecosystem impacts (which are more of UNEPs clear mandate and unique selling point as opposed to other authorities) are not very well represented. This also applies to some other sections of the report.
Executive Summary, page III	It would be very useful to know the source of information in Figure 1 (p. III) on the number of people die from air pollution. There are several different numbers on that issue throughout the internet and the scientific media but even most reliable sources like WHO websites (e.g. http://www.who.int/mediacentre/factsheets/fs313/en/) contains altering data.
Executive Summary, page	We would suggest adding "implementation gaps" to the

IV, para 2	listing of challenges and gaps.
Executive Summary, page IV	Page IV top para: recognition that global agreements only cover a fraction of the problem needs to be more explicit. Nowadays determined national and local action is essential to move towards a pollution free planet. Further discussions may identify needs for further action at global level.
Executive Summary, page IV	The five principles highlighted in bold in the last para of page IV do not match consistently with the five roman numbered lines. The latter cover important issues but formulations are sometimes unclear (e.g. in ii the reference to access to justice is not clear as you may have data, information, public awareness etc but still access to justice is hindered by other issues such as its own regulatory framework; innovation is repeated in iv and v) and the issues do not always have a direct relationship with the "interventions for action" while other important, more concrete principles that should guide action are missing (tackling pollution at source, cross-media effects, precautionary approach, transboundary effects, polluter pays, etc). Some of these are mentioned on page 40, where the five principles are further elaborated, but mixing of very different concepts in the same paragraphs is confusing.
Executive Summary, page V para 1	Under system wide actions, we would add “green finance” and “enable sustainable lifestyles”.
Executive summary, page V, line 4	An "and" before chemicals is to be deleted.
Executive Summary, page V	Among Interventions to target specific forms of AIR pollution (p. V) no residential (solid fuel) heating is listed. It might be useful to consider whether to incorporate this source also into the list.
Executive Summary, page V	It might be relevant to have a separate attention (bullet) on investing in strong air quality monitoring systems as well as air quality management plans to track and steer progress towards meeting air quality standards.
Executive Summary, page V	Including something on ammonia reduction from agriculture (as a major precursor for PM as well as nitrogen impact) would be relevant, also linking to reduction of methane from agriculture.
Executive Summary, page V	Also including something on the promotion and use of best available techniques in industrial processes and energy production would be relevant.
Executive Summary, page V	We presume the object in bullet 3 is only air pollutant and not greenhouse gasses as well, and that it would be a 'global' share in bullet 5.
Executive Summary, page V, air pollution (and also in section 3)	Under number 2: 1) instead of "sulphates, nitrogen oxides": "sulphur and nitrogen oxides", 2) add: ammonia new text would be: ...sulphur and nitrogen oxides, ammonia, persistent organic pollutants...

	add new bullet: “reduce emissions from intensive agriculture”
Executive Summary, pages V and VI	As regards targeted interventions on pages v and vi, mining is singled out in several places. While this is an important sector, it needs to be made clear why it is specifically targeted.
Executive Summary, page VI (and also in section 3)	Land pollution, number 13: delete contamination, add: "and air pollution" new text would be "water and air pollution"
Executive Summary, page VI	On top of page v or at the bottom of page vi, it would be useful to briefly explain how the "system wide level action" can help in addressing pollution (less materials used, less processing, less waste, greener production and products, etc).
Executive Summary, page VI, para 2 And also in section 3	Under marine pollution, we cannot accept a limitation of actions to the topic of marine litter. This would neglect all other marine pollution sources. SDG 14.1 at least mentions marine pollution through nutrients/ eutrophication. Wastewater treatment and other issues are at least as big a challenge as marine debris/plastic litter. The bullet points under this enumeration should have at least as many bullet points on nutrients as on marine plastic litter.
Executive Summary, page VII	Under (i) we would add: “building circularity and resource efficiency in production…”
Page 3, para 1	We would recommend to delete the phrase “delivering on the environmental dimension of the 2030 Agenda”. The report should not limit itself to the environmental dimension.
Page 3 in the blue box	Waste management industry is not a source, but a sink for pollution. Therefore, the word "improper" should be placed before "waste management industry"! "plastic" is not a hazardous waste (deletion)
Page 6 blue table	Under Air, box 1: instead of ammonia: ammonium. Under Air box 4: delete: (active nitrogen). Under human impact box 1: add “cancer”. Under ecological effects box 4: after eutrophication add: “Acidification” (e.g. in Central Europe, ammonium is responsible for ca. 50% of acidification.) Under ecosystem box 2: cooling of what? Under ecosystems box 4: delete the whole paragraph starting with “reduced food…”, add instead: Altered nutrient cycling; increased system losses, loss of biodiversity. Under ecosystems box 6: add: increased system losses (note: this relates e.g. to basic cation nutrients).
Page 6 text under blue table	At least for Germany, the general assertion that waste incinerators are a major source of air pollution is incorrect; on the contrary, they reduce air pollution (including climate-depeting emissions) as an alternative to other forms of disposal. Therefore, the word "improper" should be placed before Waste Incinerators. Also add: agriculture for pollution source, see e. g. Lelieveld et al 2015

Page 6	Although (ground level) ozone is dealt with on p. 8 it is missing from Table 2 (p. 6).
Page 7	Some affirmation is needed on the reliability of Jakarta Post newspaper cited in Box 1 (p. 7).
Page 8	Agriculture is dealt with on page 87 but missing from the list of main sources of outdoor air pollution on page 8.
Pages 11 and 13	Nutrient pollution leads to several ecosystem effects, and affects more ecosystem services than fish stocks productivity, for instance changing habitats for species and their functions. The tables 4 and 5 (page 11 and page 13) could either reflect that fish stock productivity is one example of affected ecosystem services, or the list should be expanded. One potentially useful resource could be https://cices.eu/.
Page 13 para 3	A comma should be deleted before "on the productivity of fish stocks."
Page 15	Include light/ heat/ noise Pollution is defined on page 15 as 'the introduction of substances or energy [..]'; on page 16 it goes on to include light, heat and noise as examples of energy introduction. However, the document further down only focuses on substances. We would invite the ED to include light, heat and noise (in particular marine underwater noise) as categories and elaborate actions that need to be taken, along the same lines as done for other categories.
Page 15	Underneath the blue box – It reads " Oil spills are responsible for only 12 per cent of the oil in the ocean." Question: Where do the other 88% stem from? This should be explained.
Page 20	There is a typo on page 20 (Food and Agriculture Organi**sz**ation).
Page 20/1	Perhaps the issue of "costs of pollution" could be illustrated with a figure/graph? This section looks somehow "lost"
Page 21 para 1	Add comma after "reviewed" in line 1.
Section 1 in general (and other sections as well)	Reading through the different media and pollution types, it is clear that nutrient (N and P) pollution is a recurrent issue. Perhaps this cross cutting message could be highlighted in section 1 (perhaps under cross cutting types of pollution) and then also in the other action oriented sections (as there are also almost no national or international agreements/strategies on this issue)? We have also noticed that the concept of planetary boundaries is missing from the report and would suggest to add it (this could be done for example in relation to nutrient pollution).
Page 23 para 1	Delete a comma after "These declarations"
Page 24 para 2	The regional environment and health fora are mentioned. How about cooperation between environment and other ministries? Pollution is not only about health. Can we find some other examples?
Page 24 para 4 phrase 2	Only plastics and non persistent chemicals are mentioned as not being covered by agreements. What about nutrients or other pollutants? Would it be useful to have a review of the pollutants covered(and not)?

Page 24 and page 69	References to the "Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships, 2009" are missing
Page 26	Regarding consumer information, it means that you have to be able to, and interested in taking the information. And even if you can take in information it might be difficult to rate it. Right information is important and how to address it rightly – lack of information is a big problem. For example protection of children; completely dependent on their parents possibilities of take in (and understand) the information. The UNEP Chemicals in Products Programme[2] (mentioned on p 26) is an enabler for consumer information, for recyclers and for the business supply chain as a whole. This could be much better reflected in the report e.g. in sections 2.3 on challenges and 3.3 on enablers. Information on chemicals in products is a prerequisite for safe production, use and waste handling/recycling of products.
Page 30 para 1 beneath blue box	Grammar/Structure of the sentence should be double checked .
Page 30 para 2	This section does not refer to energy as a secondary material, however waste-to-energy is an important technology.
Page 31 para 1	Add "inclusive" between "careful" and "transition planning"
Page 31	General remark (on this page or elsewhere): the report, particularly in this section, focuses on "potential of enhanced health and economic benefits". The benefits of a clean environment (without necessarily going into ecosystem valuation) are not highlighted (see also comment on the executive summary).
Page 32	Numbers 1-8 do not mention policy coherence and ownership by different ministries. However these are basic requirements also for implementing the 2030 Agenda.
Page 33	Short termism. On page 33, under item 8, short termism of government policies is rightly identified as a barrier for effectively addressing pollution. Globally, the Agenda 2030 provides a long term focused, robust framework, but there is a need to ensure long term policies at regional, national and local levels. This deserves more attention in the document as well as in one of the Leadership Dialogues.
Page 34, para 2	It reads "*The prevention and significant reduction of all kinds of marine pollution, in particular from land-based activities, including marine debris and nutrient pollution will help achieve Goal 14."* Remark: This sentence merely quotes the wording of SDG 14.1. However this section aims at showing that the SDGs are already tackling pollution (some directly (such as 14.1), some indirectly). We therefore suggest to reword: "SDG 14.1 already addresses pollution explicitly by requesting *the prevention and*

[2] http://www.unep.org/chemicalsandwaste/what-we-do/science-and-knowledge/chemicals-products-cip-programme

	significant reduction of all kinds of marine pollution, in particular from land-based activities, including marine debris and nutrient pollution. "
Page 34	Chapter 2.4 :Most relevant goals and targets are mentioned and also possible trade-offs except for target 8.4 „decoupling economic growth from environmental degradation" which gives direction to disconnect growth and environmental degradation. This perspective is not yet represented. A place to add this target might be as follows: Page 34, last paragraph: … However, this may result in increased air, land and freshwater pollution, in a business as usual scenario, *whereas target 8.4 endeavours to decouple economic growth from environmental degradation*. Modelling studies suggest that sustainable consumption and production (Goal 12) policies are the most effective in reducing trade-offs. Addressing pollution therefore requires an integrated approach and a strong science-policy interface to build synergies and avoid negative impacts.
Page 36	Science-policy interfaces. On page 36 (2.5) the science-policy-business interface is identified as a key cross cutting element. The document could be enriched by an illustration of one of UNEP's most successful science-policy interfaces, namely the International Resource Panel.
Page 36	Section 2.5 (or elsewhere): We recommend looking into whether the PAGE alliance, of which UNEP is a member, can add more examples of multi actor initiatives or policy examples on pollution linked to green economy. PAGE is a good example of how different UN agencies cooperate by sharing their expertise, and also of how to bring together different ministries and actors on a national (regional) level.
Page 39	Discussion of solutions, future options reducing/mitigating pollution (essential part) is disproportionally short (technical solutions (Chapter 3) are only 15 pages long), creating an imbalance in the entirety of the document.
Page 39 para 1	See comment in Executive Summary on "aspirational goal".
Page 40 and pages 54/55 (evidence based decision making)	We would welcome more explicit and detailed highlighting of the precautionary principle.
Page 41	Precautionary approach and more research. The call for more research is a very common policy response to environmental challenges; nevertheless, there is international agreement that a precautionary approach also needs to be taken. See for example page 41, on endocrine disruptive substances. Given the immediate and drastic effects of pollution on human life and health, the document should elaborate on how the two approaches should be combined, in order to avoid situations where research stands in the way of precautionary action.
Page 41	Blue table, box 2 under chemicals/pollutants: Comment: MEAs exist regionally e.g. for lead, cadmium,

	some POPs, PM, ozone, SO2, NOx, ammonia. Also add: ammonia
Page 42	In the section: "Reduce global vehicle emissions…" Change Euro 4level to Euro 6level. Explanation: In a recent report, new data reveal that NOx emissions from diesel cars are much larger than previously experienced. This also applies to the new environmental classes (Euro 5 and Euro 6). So it will not be a solution to the problem of introducing cars that meet at least Euro 4 – to have the effect we are after we should change it to Euro 6level.
Page 43	For chemicals and waste there is an absence of preventive measures, which is the most important for the long-term work. For example the report is missing concrete measures for; i) reducing the exposure to humans and the environment, ii) occupational exposure, iii) exposure and effect to many different chemicals (cocktail effect), iv) linkage to poverty and human rights, v) gender perspective, vi) protection of vulnerable groups such as pregnant women and children. Only lead, mercury and asbestos are mentioned in the measures, although the report points out a lot of chemicals that should be regulated. The list of measures should be expanded accordingly.
Page 43	The perspective of exposure to chemicals from articles is inadequate as well. Articles are traded globally and they may spread (hazardous) chemicals through their entire life cycle phase (production, use and waste).
Page 43	On marine pollution: limitation to marine litter is not acceptable.
Page 43	On waste: In the list of measures the central point to combat pollution by waste is missing: "Increase recovery incl. recycling of waste." Here or elsewhere, attention should be drawn to the need to finance environmentally and health sound waste management structures to combat the harmful effects of improper waste management: "Install fee and charge systems according to the polluter pays principle".
Page 43	Another cross cutting action could be identified on nutrients.
Pages 44 and 52	Highlight the role of cities and local governments. On pages 44 and 52 (3.2.4) some attention is being given to the role of cities and local governments in abatement policies; we feel that this role should be more emphasized and elaborated, given the fact that so much of the pollution problem plays out at the local level. This could also help to strengthen UNEP's links to UN Habitat, UNDP, ICLEI and other relevant organisations
Page 44 para 2	Add "resource efficiency" under (i)
Page 44, section 3.2.1	A new approach of the "5R" is introduced here - unfounded. So far, only one concept of "3R" has been used. One could also speak of "8R", if one wanted to supplement Refurbishment, Remanufacturing and Repair ". However,

	retention of "3R" is preferred.
Page 45 under blue box	Four sectors are mentioned, but only three bullet points follow. Why is manufacturing/industry not one of the most polluting sectors? On which basis are these four sectors selected?
Page 48	We suggest adding something on sustainable public procurement (here or maybe page 57?). We welcome that the report is looking into reorienting finance. However we miss the explicit mentioning of green (or sustainable finance) (UNEP Inquiry being quite strong on this issue). How can green (sustainable) finance move away from "only" climate finance and embrace other sustainability issues such as pollution? (see also blue box on page 49). The report does also not refer to international financial institutions or development banks. What is their role in anti-pollution action?
Page 50	Bullet point 1: double check grammar/structure of first sentence
Page 51	Bullet point 2: does not mention that green infrastructure not only serves to reduce pollution but als protects and enhances biodiversity
Page 51	Main para referring to BAT/BEP is as below page 51 and make a strong link with technology transfer and funding. It would be better to separate (1) BAT/BET should be generalised in industry so to harvest emission reductions, (2) appropriate paragraph on tech transfer.
Page 51	Technology diffusion and transfer: Although technological and ecosystem based solutions exist to address many pollution problems, information about the costs-benefits and successes and failures in deploying technologies are not always available to decision makers, particularly those in developing countries. The challenge is how to diffuse these technologies more widely and make them more affordable to everyone and compatible with development goals and the national environmental, socioeconomic, and cultural priorities, and how to encourage local solutions based on local or traditional knowledge. Overcoming these challenges requires building and strengthening the enabling environment for technology transfer including putting in place supporting policies, providing technology users with the choice they need, and reducing risks for investment. Mechanisms to support developing countries with issues of technology transfer are as a consequence a part of many multilateral environmental agreements. Best Available Techniques (BAT) and Best Environmental Practices (BEP) also need to be more systematically defined, as is done by some multilateral environmental agreements, such as the Stockholm Convention or the Oslo and Paris (OSPAR) Convention. BAT and BEP evolve over time in the light of technological advances, economic and social factors, and changes in scientific

	knowledge and understanding. Developing countries also have the opportunity to harness the potential of North-South, South-South collaboration in order to stimulate technology transfer and long-term domestic economic growth.
Page 59	3.2.4 Education for change: Add sentences after second sentence: "As the subject of education is quite peculiar in terms of it's aim to change daily habits not only in childhood but addressed people at all age, teaching in tradional ways can not be sufficient, it need to be innovative and renewable. Discovery and experiential learning are essential ro raise people's awerness of personal responsability of our common future."
Page 59	3.2.4 Education for change: Add "experient based" as follows: "Experient based education on pollution can take many forms."
Page 59	Add following sentence ""Lifelong learning means a wide range of communication channel between diverse generations from the television until the highest scientific forums." after sentence "Providing courses and trainings are not the only links between education and pollution."
Page 61, Conclusion	We would welcome a reference to green finance.
Page 71	Add UNECE LRTAP Convention + 8 protocols.
Page 77, number 8	Please delete the cities Oslo and Paris as well as the brackets around OSPAR, the correct name is „OSPAR Convention".
Page 72, number 19	Add Paris Agreement.
Page 72 number 20	Is this regional?
Page 87	Table – air pollution – limitations – box 2: Comment: this (emissions from fields) is not a description of limitations but a consequence of not applying this technique. should be modified accordingly.
Page 87	Mentioning of CO2 reduction in relation to human health improvement (table of Annex 7 on page 87 Air Pollution – Road Transport – Impacts/Benefits) is not relevant.
Page 90, References	Lack of references to EEA publications in the bibliography used as source of information and consequently risk of missing key messages relevant to European region.